

## 25.3: Data and Analysis

### Data Collection (25 points)

Following your detailed protocol, perform all the experiments. Record your observations and take pictures of your key steps in the process. Your observations and images need to be incorporated in your data section and this section should be as detailed as possible as you will use this information to complete your discussion.

### Data Processing (25 points)

1. Write the balanced chemical reaction for  $\text{CaCl}_2$  dissolving in water.
2. Calculate the concentration of  $\text{CaCl}_2$  in solution.
3. Calculate the concentration of  $\text{Ca}^{2+}$  and  $\text{Cl}^-$  in solution.
4. Calculate the concentration of sodium alginate in solution.
5. Fill in the following table using the data and observations from your experiment:

Assumptions made	Testing the assumption	If assumptions are wrong ...
The distilled water is pure	Evaporate it and check for residue	The density would change depending on the density of the contaminant.
Calcium alginate is insoluble in water	Check the solubility	
		The mass of recovered solid is dramatically less than expected

25.3: Data and Analysis is shared under a [not declared](#) license and was authored, remixed, and/or curated by LibreTexts.